

E. R. PROBERT & C. E. STUART.

FILING DEVICE.

APPLICATION FILED FEB. 6, 1911.

993,406.

Patented May 30, 1911.

2 SHEETS-SHEET 1.

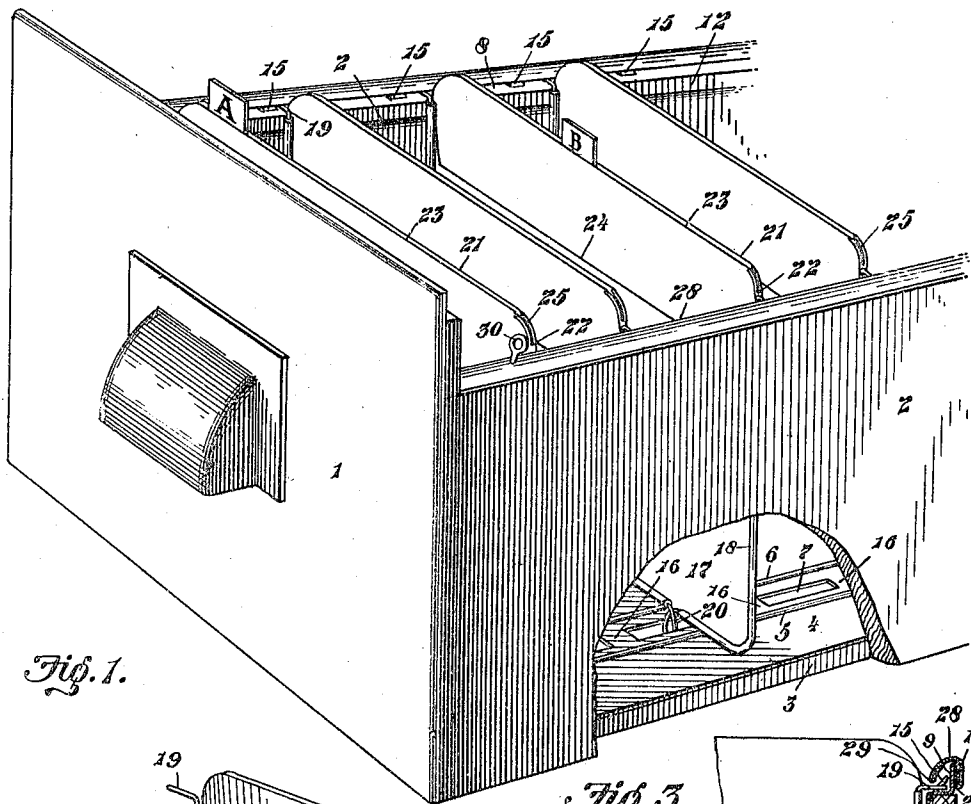


Fig. 1.

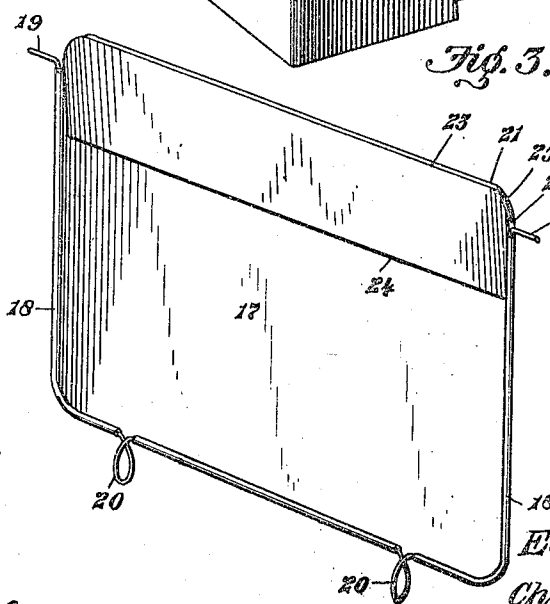


Fig. 2.

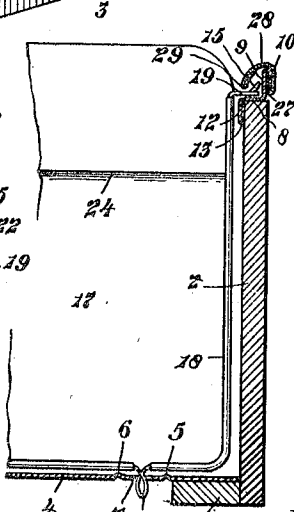


Fig. 3.

Witnesses
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2 SHEETS—SHEET 2.

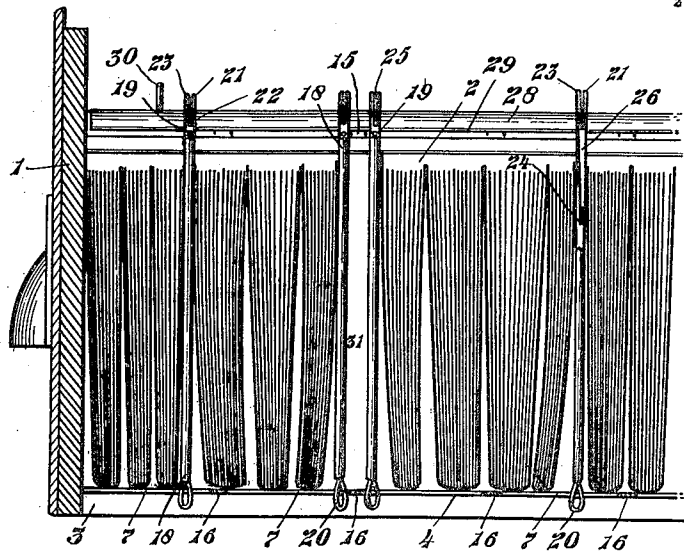


Fig. 4.

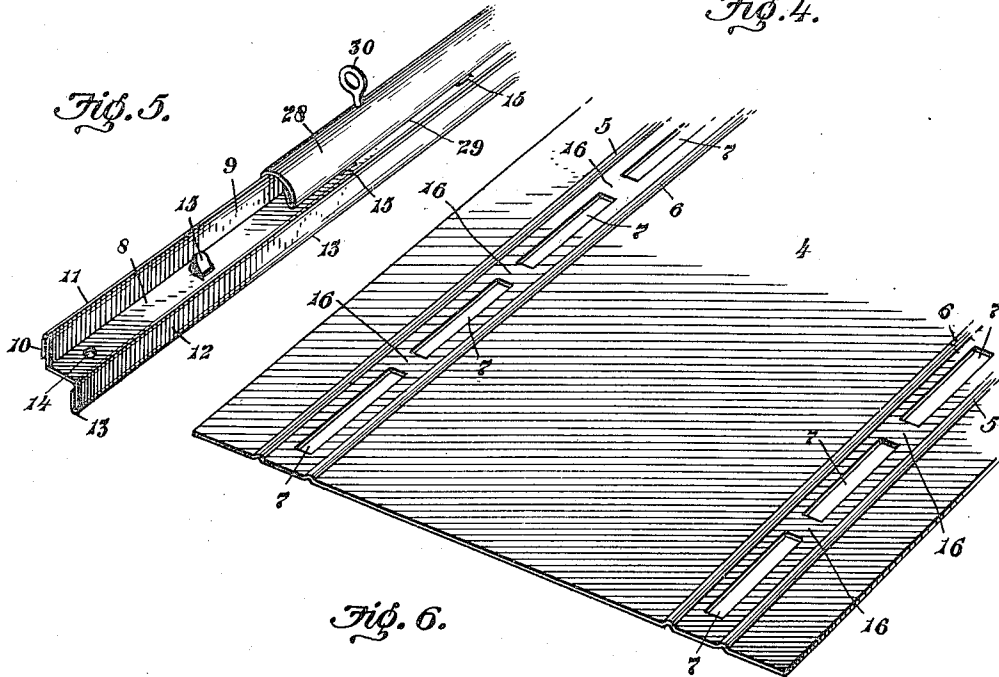


Fig. 6.

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UNITED STATES PATENT OFFICE.

EDWIN R. PROBERT AND CHARLES E. STUART, OF CANTON, OHIO.

FILING DEVICE.

993,406.

Specification of Letters Patent.

Patented May 30, 1911.

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To all whom it may concern:

Be it known that we, EDWIN R. PROBERT and CHARLES E. STUART, both citizens of the United States, and both residing at Canton, in the county of Stark and State of Ohio, have invented a new and useful Filing Device, of which the following is a specification.

Our invention relates to improvements in devices for the vertical filing of papers, the invention being especially applicable to correspondence or letter files and the like, but also applicable to other forms of filing devices, storage drawers or other means for the filing or storing of papers or other articles.

The objects of our invention are to generally improve devices of the character mentioned, to provide a filing device in which the follower block at the rear end of the drawer, now commonly employed, is unnecessary; and to construct a filing device which will keep the papers or other articles filed in a vertical position and will permit any considerable amount of the contents of the file to be removed therefrom without permitting the remaining contents to fall, bend or buckle over into a state of confusion, a well known serious fault of filing devices heretofore employed.

We also desire, by our invention, to provide a device which will be cheaply made, consideration being had for the results accomplished by it, which will be strong, durable, convenient in use and thoroughly efficient and satisfactory.

The above objects, together with other objects readily apparent to those skilled in the art, we attain by the construction illustrated in the accompanying drawings, although our invention may be embodied in other forms, the construction illustrated being chosen by way of example.

In the drawings Figure 1 is a perspective view of a portion of a file drawer embodying our invention, a portion of the drawer being broken away to more fully disclose the construction. Fig. 2 is a perspective view of one of the supporting plates. Fig. 3 is a transverse fragmentary sectional view of one of the sides and a portion of the bottom of the drawer with a supporting plate in place. Fig. 4 is a longitudinal sectional view of a filing device embodying our invention taken on the line 4-4 of Fig. 3 and showing contents in the file. Fig. 5 is a fragmentary perspective view of the upper plate holding

and limiting means. Fig. 6 is a fragmentary perspective view of the bottom of the drawer showing the lower plate holding and limiting means.

Throughout the several views similar numerals of reference indicate similar parts.

It will be understood that our invention is not limited to filing drawers but may be provided in connection with or as a part of any suitable container for holding correspondence, papers, or other articles in vertical position. In the drawings however such container is illustrated as a drawer for the reason that in practice drawers are more commonly employed for this purpose.

The numeral 1 indicates the front and the numeral 2 the sides of the filing drawer. Connected to the sides 2 on the inner sides of their lower edges are the longitudinal strips 3 which constitute sliding bases or bottoms on which the weight of the drawer rests. The true bottom 4 of the drawer is preferably formed from sheet metal and extends from one side 2 to the other and for the full length of the drawer from front to rear. At the inner edge of each strip 3 a longitudinal upwardly raised plate supporting bead 5 is formed in the bottom 4 while a similar bead 6 running parallel with the bead 5 and slightly spaced therefrom is arranged further inwardly. In the portion of the bottom 4 intermediate the beads 5 and 6 is arranged a longitudinal series of longitudinally elongated limiting slots 7 for the purpose hereinafter more fully explained. The preferable arrangement of beads and slots in the bottom 4 is more clearly illustrated in Fig. 6 where it will be seen that beads and slots are arranged adjacent the two side edges of said true bottom.

Along the top edge of each of the sides 2 is arranged a plate holding and limiting means which comprises a stationary member formed of sheet metal and having the horizontal portion 8 adapted to be arranged upon the top edge of the side, an integral upwardly extending flange 9 at the outer edge of the portion 8, said flange 9 terminating in a folded-over flange 10 spaced from the flange 9 and producing a rounded edge at 11. The portion 8 is likewise formed integrally with a depending flange 12 on the inner side of the drawer, the lower edge of the flange 12 being hemmed or folded under along the line 13 to produce a rounded lower edge. The stationary members of the plate holding and limiting means are con-

5 nected to the sides by fastening means extending through suitable apertures 14, or by other equivalent fastening devices. From the portions 8 tongues 15 are stamped and bent upwardly with respect to the portion 8 as illustrated in Fig. 5. These tongues are arranged at intervals along the length of the portion 8 and correspond in location with the portions 16 intermediate longitudinally adjacent slots 7 in the bottom 4. It will be understood that the portions 16 at the two sides of the bottom 4 are arranged in pairs on transverse lines and the tongues 15 are correspondingly arranged above said portions 16.

Each supporting plate is preferably constructed of sheet metal and comprises a main body 17 formed plain and flat and provided along its lateral and lower edges with an integral roll 18 inclosing a strengthening or reinforcing wire. At the upper ends of the roll 18 at the lateral edges of the plate the ends of the wire protrude from said roll and are bent laterally outward in the plane of the body 17, forming the projecting upper lugs 19. Along the bottom edge of the plate the wire extends through the roll 18 forming two downwardly projecting looped lower lugs 20 lying in the plane of the body 17. The sheet metal forming the body 17 extends upwardly beyond the upper lugs 19 and is folded over upon itself along the line 21 and extends downwardly to the point 22 where it is again folded upon itself and extends upwardly to a point equal in height to the line 21 where, along the line 23 it is again folded upon itself and extends downwardly for a considerable distance below the lugs 19 where it terminates at 24. Between the portions folded along the lines 21 and 23 there will thus be formed a groove extending along the entire upper edge of the plate, which groove is numbered 25 in the drawings and is for the purpose herein after more fully explained. By reason of the construction of the groove 25 along the upper edge of the plate, as just described, the said upper edge of the plate will be considerably thicker than the body 17 and as will be noted especially at 26 in Fig. 4, where a portion of a plate is broken away, the sheet metal is backwardly inclined from the line 23 to 24 so that the edge of the metal at 24 fits closely and snugly to the body 17. By reason of this fact a projection liable to interfere with the free removal of papers from the file is avoided.

In each filing device embodying our invention a plurality of supporting plates are employed. The lower lugs 20 are so located as to enter the limiting slots 7 at the two side edges of the bottom 4 and the upper lugs 19 are adapted to rest upon the horizontal portion 8 of the stationary member of the plate holding and limiting means.

The lower lugs 20 of each supporting plate being arranged in their appropriate slots 7 the lower edge of the plate will be permitted to move longitudinally in the drawer within the limits of the length of the slots, the portions 16 acting as stops with which the lugs 20 engage at the ends of the slots. In like manner the upper portion of each supporting plate may move longitudinally in the drawer within the limits of the space between adjacent tongues 15, the upper lugs 19 being adapted to engage with the said tongues as will be readily understood. In this way each vertically disposed supporting plate is capable of independent sliding movement longitudinally within the drawer, but its movement both frontwardly and backwardly is limited. Serially adjacent supporting plates may move into close relation with each other but such movement is limited by the tongues 15 and portions 16 so that said plates, even in their closest relation, will not come into actual contact. On the other hand serially adjacent plates may be separated from each other to the opposite limits of movement. During the movement of said plates, however, they will be maintained in vertical or substantially vertical position at all times by reason of their attachment by the lugs 19 and 20 and in actual use the said plates will move bodily, both top and bottom longitudinally in the drawer or other container.

For the purpose of removably locking the supporting plates in the container slidably movable members are provided for the plate holding and limiting means at the top edges of the sides 2. Each movable member is preferably formed of sheet metal and comprises a retaining flange 27 adapted to slidably move longitudinally between the flanges 9 and 10 of the stationary member, and an integral hooded or upper lug retaining portion 28 having an inwardly and downwardly disposed lug engaging edge 29 adapted to normally lie very slightly above the lugs 19 so that said lugs will clear said edge 29 in moving longitudinally along the portion 8. Said edge 29 however prevents the lugs 19 from being lifted above the tongues 15 or out of the container or drawer, thus keeping both the lugs 19 in place upon the portion 8 between their appropriate tongues 15 and maintaining the lower lugs 20 in place in their respective slots. If desired a suitable thumb piece 30 may be connected to the movable portion for convenience in grasping the said movable portion to slide it longitudinally when it is desired to remove any of the supporting plates. It will be understood that by sliding the movable portion backward the lugs 18 will be freed in such way that the corresponding supporting plates may be lifted out of the drawer. When in the drawer the plates are supported

by the lugs 19 resting upon the portion 8 and the bottom edges of the plates on the beads 5 and 6.

It will be noted that with our invention no follower block is required and the entire capacity of the container from front to rear may be used for filing purposes. The plates may be disregarded in so far as separating the container into alphabetical divisions and the like is concerned and a separate set of division plates employed if desired. However the groove 25 in the top of each plate is peculiarly adapted for the holding of an index tab or card when it is desired to employ the supporting plates, not only for the supporting of the contents but also as division plates for the various alphabetical or other divisions of the file.

In Fig. 1 it will be noted that tabs "A" and "B" are arranged in the grooves of the first and third plates and it will be understood that such tabs or indexes may be readily changed from one plate to another or removed entirely when desired, the tabs or indexes being provided with a lower blank portion adapted to snugly fit into the groove 25 at any point along its length.

Heretofore much inconvenience has been experienced in the use of filing devices, especially those devices used for the filing of papers, by reason of the fact that the papers are liable to fall over, "buckle" and become otherwise disarranged when any considerable portion of the contents is removed. This is especially noticeable in files for the keeping of correspondence. With the old forms of device it has been necessary, when removing any considerable number of papers, to bring the follower block at the rear end of the drawer forward, thus moving forward all of the contents back of the papers removed, in order that when said papers are removed those remaining may not fall into confusion. Again, when returning papers to the file it has been found difficult to immediately locate the space from which they have been taken for the reason that the other papers have fallen together, thus closing up said space. In the use of our invention, on the other hand, it will be noted that the contents between each two adjacent plates will be held substantially in true vertical position at all times. When the contents is removed from between any two plates, as has been done at 31 in Fig. 4, the said plates will move toward each other within their respective limits of movement but will be held spaced from each other, as shown at 31. The correspondence in the divisions adjacent said plates will thus be somewhat loosened, but the plates are sufficiently numerous so that such loosening of the contents will not result in disorder or in the falling over or buckling of the papers. When it is desired to return papers to the file it is only necessary to in-

sert the fingers between the plates at 31 and push them apart from each other, whereupon sufficient space will be made for the return of the papers to their proper place.

It should be especially noted that the operation of each supporting plate is independent of the other plates, that adjoining plates never approach each other so closely as to make it difficult to locate the empty space nor can they separate from each other so widely as to permit the contents between them to fall over or buckle.

For the most satisfactory operation of the device the spaces between the various plates should be well filled and it should be noted that even if such spaces should be considerably crowded with contents the removal and return of a portion of such contents may be accomplished more readily than in the case of files heretofore in use holding fewer papers.

We claim:—

1. A filing device comprising a container, independent, slidably movable supporting plates arranged in said container, and limiting means adapted to limit the sliding movement of each plate.

2. A filing device comprising a container, vertical, independently slidable supporting plates in said container and limiting means adapted to limit the sliding movement of each plate.

3. A filing device comprising a container, vertical supporting plates in said container, each plate adapted for independent slidable movement frontwardly and rearwardly in said container, and limiting means adapted to limit the sliding movement of each plate.

4. A filing device comprising a container, vertical, transversely disposed supporting plates in said container, each plate independently slidably movable frontwardly and rearwardly, and limiting means adapted to limit the sliding movement of each plate.

5. A filing device comprising a container, a longitudinal series of transversely disposed, vertical supporting plates slidably mounted in said container, and means for independently limiting the sliding movement of each plate.

6. A filing device comprising a container provided with sides, ends and bottom, vertical, transversely disposed, supporting plates in said container, each plate independently slidably movable frontwardly and rearwardly, and limiting means adapted to limit the sliding movement of each plate.

7. A filing device comprising a container, independent slidably movable supporting plates in said container, limiting means adapted to limit the sliding movement of each plate, and each plate provided with tab or index attaching means at its upper edge.

8. A filing device comprising a container

and a plurality of vertically disposed supporting plates in said container, each plate adapted for bodily, slidable movement in said container within predetermined limits,

5 9. A filing device comprising a container and a plurality of supporting plates, each plate adapted for independent movement toward and away from adjacent plates, means for limiting the movement of adjacent plates toward each other, and means for limiting the movement of adjacent plates and means defining said limits.

10 10. A filing device comprising a container and a plurality of supporting plates, means for holding each plate in substantially vertical position while permitting it to slide within said container and means for limiting its sliding movement.

11. A filing device comprising a container 20 having sides and a bottom, a series of supporting plates arranged in said container and means connecting said plates with said sides and bottom, said means adapted to permit the independent movement of each of said plates while limiting the extent of such movement.

12. A filing device comprising a container having sides and bottom, a series of transversely disposed supporting plates in said container, said bottom provided with longitudinally elongated slots, lower lugs connected to said supporting plates and arranged in said slots, upper lugs connected to said supporting plates, and means connected to said sides for engagement with said upper lugs to limit the movement thereof, whereby each of said supporting plates may move bodily longitudinally in said container, the extent of such movement being limited.

13. A filing device comprising a container, a longitudinal series of transversely disposed, independently bodily movable supporting plates in said container, means for preventing the movement of adjacent plates into contact with each other and means for preventing separation of adjacent plates from each other beyond a predetermined limit.

14. A filing device comprising a container 50 having sides and a bottom, a series of supporting plates in said container, said plates provided with lower lugs and upper lugs, said bottom provided with portions adapted for engagement with said lower lugs to permit movement of said lower lugs longitudinally in said container while limiting the extent of such movement, and said sides provided with means adapted for engagement with said upper lugs to permit movement of said lugs longitudinally of said container, while limiting the extent of such movement.

15. A filing device comprising a container

having sides and a bottom, a series of supporting plates in said container, said bottom provided with portions adapted for engagement with portions of said plates to permit movement of the lower portions of said plates longitudinally in said container while limiting the extent of such movement, and said sides provided with means adapted for engagement with portions of said plates adjacent the tops thereof to permit movement of the top portions of said plates longitudinally of said container, while limiting the extent of such movement.

16. A filing device comprising a container provided with a sheet metal bottom, said bottom provided with a longitudinal series of slots, a longitudinal series of supporting plates arranged in said container, said plates provided with portions adapted to extend into the said slots; whereby the bottom portions of said plates are adapted to move longitudinally in said container, the extent of such movement being limited.

17. A filing device comprising a container provided with sides and a bottom, a longitudinal series of supporting plates arranged in said container, said sides provided at their top edges with plate holding and limiting means comprising a stationary member formed of sheet metal fixedly connected to the top edge of the side and a movable member connected to said stationary member, said plates provided with portions adapted for engagement with said stationary member, and said movable member adapted to hold said portions of said plates in engagement with said stationary member.

18. In a filing device a supporting plate constructed of sheet metal and comprising a main body provided along its lateral and lower edges with an integral roll inclosing a stationary wire, the ends of said wire protruding laterally from the side edges of the plate adjacent the top portion thereof and said wire extending through the roll along the bottom edge of the plate and forming a downwardly projecting lug.

19. In a filing device of the character described a supporting plate constructed of sheet metal and provided at its upper edge with a portion twice folded upon itself to form a groove along the upper edge of the plate adapted to receive the base of an index tag or tab, substantially as described.

In testimony that we claim the above, we have hereunto subscribed our names in the presence of two witnesses.

EDWIN R. PROBERT.
CHARLES E. STUART.

Witnesses:

WILLIAM H. MILLER,
NILES A. SPONSELLER.